Health Inclusive Poverty Measure Estimates in the United States: 2014 to 2021

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Abstract

This paper provides Health Inclusive Poverty Measure (HIPM) estimates from 2014 to 2021. The estimates reflect adaptations to the original methodology (Korenman and Remler 2016) to meet the U.S Census Bureau's annual production timelines and include information from internal data (Creamer 2021). HIPM expands the Supplemental Poverty Measure (SPM) by incorporating health insurance values in poverty measurement. The HIPM poverty rate in 2021 was 9.5 percent, 1.7 percentage points higher than the SPM poverty rate of 7.8 percent, and 2.1 percentage points lower than the official poverty rate of 11.6 percent. This represents a decline in HIPM rates of 7.4 percentage points since 2014, not statistically different from the SPM, which declined 7.8 percentage points in the same period. In 2021, differences between HIPM and SPM were notable for Hispanic individuals and non-citizens, reflecting higher uninsured rates for these groups. The impact of public assistance is considered too, with Medicare and Medicaid having a 5.8 and 4.2 percentage point impact on overall HIPM rates respectively. Sensitivity tests are performed to determine the impact of methodological changes compared to previous estimates. Overall, the estimates provide supportive evidence that HIPM could be produced under the current U.S. Census Bureau production timelines and highlight the key differences between poverty measures.

[1] This paper is released to inform interested parties of ongoing research and to encourage discussion of work in progress. The views expressed on methodological or operational issues are those of the authors and are not necessarily those of the U.S. Census Bureau. Any error or omissions are the sole responsibility of the authors. All data are subject to error arising from a variety of sources, including sampling error, non-sampling error, modeling error, and any other sources of error. For further information on data collection, standards, accuracy, refer to <https://www.census.gov/programs-surveys/cps/technical-documentation.html.> The Census Bureau has reviewed this data product to ensure appropriate access, use, and disclosure avoidance protection of the confidential source data used to produce this product (Data Management System (DMS) number: D-0000010797, Disclosure Review Board (DRB) approval number: CBDRB-FY23-SEHSD003-040.

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Introduction

Researchers and policymakers alike use the official poverty measure and the Supplemental Poverty Measure (SPM) to track economic well-being in the United States and evaluate the impact of policy on poverty rates. Each measure provides a different picture of economic well-being. The official poverty measure defines a family's resources as cash income, making it possible to evaluate how cash-based assistance like unemployment and Social Security benefits impact poverty rates. Meanwhile, the SPM broadens the definition of these resources to include in-kind benefits like the Supplemental Nutritional Assistance Program (SNAP) and tax credits like the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC), enabling researchers to analyze a broader portion of the social safety net in the United States.

Importantly, neither measure accounts for the broad role that the government and employers play in offsetting healthcare costs through the provision of Medicare, Medicaid, and employer subsidies for those with employer-sponsored insurance. Based on the discussions of a panel convened by the National Academies of Sciences, the SPM deducts reported out-of-pocket medical expenses (MOOP) from a family's resources to reflect these rising health costs impacting budgets (Citro and Michael 1995). However, the difficulty in valuing the costs and benefits of one's health insurance across the United States means that this method ignores a key source of benefits in the United States healthcare system.

The implementation of the Patient Protection and Affordable Care Act (from here referred to as ACA) in 2014 changed the health insurance landscape in a way that enabled new research on how to value these programs and incorporate them in poverty measurement. One method, the Health Inclusive Poverty Measure (HIPM) (Korenman and Remler 2016; Korenman, Remler and Hyson 2019a), uses information from the Health Insurance Marketplace as well as the average government contribution to Medicare to add a value of health insurance to existing poverty thresholds and family resources. These values use the existing SPM units as sharing units, assuming that families and cohabitors share health benefits.

This paper presents HIPM estimates based on adaptions to the existing methodology to meet the production timeline and requirements at the U.S. Census Bureau in addition to including additional information available on internal data files (Creamer 2021). In 2021, the HIPM poverty rate was 9.5 percent, 1.7 percentage points higher than the SPM poverty rate of 7.8 percent. This represented a decline in the HIPM rate of 7.4 percentage points from 2014. The difference in SPM and HIPM poverty rates ranged from 0.6 percentage points (2016) to 2.3 percentage points (2018). This paper extends previous research which has provided single year estimates (Korenman and Remler 2016; Korenman, Remler, and Hyson 2019b; Hyson, Korenman, and Remler 2021) by providing a time series from 2014 to 2021 using a consistent methodology.

The paper then provides a deeper analysis of who is classified in poverty in 2021 by measure. HIPM poverty rates were lower than SPM rates for the aged 65 and older population when compared to other age groups and higher for Black and Hispanic individuals when compared to non-Hispanic White and Asian individuals.[2] HIPM and SPM poverty rates also varied for different types of health insurance coverage. For example, HIPM poverty rates were higher than SPM rates for those with employer-sponsored insurance, Medicaid (full or part-year), direct purchase insurance, and for the uninsured,

[2] The difference between HIPM and SPM rates for those under age 18 and those aged 18-to-64 was not statistically different.

while they were lower for those with Medicare. The mechanics of the methodology drive this result. Individuals with fewer health resources have higher HIPM rates than SPM, as the value added to the poverty threshold is met with a smaller (or zero) value added to one's resources. In some cases, like for the uninsured or those with part-year Medicaid, this is an intuitive result. In other cases, like for those with employer-sponsored insurance, it reflects SPM units with multiple types of health insurance coverage or the presence of uninsured members. All things considered, differences in HIPM rates and SPM rates are especially sensitive to presence of health insurance in a SPM unit.

Lastly, the paper performs a range of sensitivity tests which estimate the impact of adjusting the HIPM framework to meet the demands of the annual production process for the existing poverty measures. The results indicate that most changes have small impacts on poverty rates which would not necessitate drastic changes from the proposed method. Further research topics are discussed in the conclusion which are targeted to understand the impact of survey changes and expand the HIPM time series to 2009 to run alongside the current SPM series as well as considering the impact of valuing some level of uncompensated care for the uninsured.

The paper continues with a discussion on the existing literature, followed by a discussion of the necessary data and presentation of estimates and sensitivity tests.

Background

A key difference between the SPM and the official poverty measure is the SPM's ability to measure the impact of different policies which target the low-income population. For some policies, such as SNAP, evaluating the program's anti-poverty effect is straightforward. The value of SNAP benefits is directly reported by respondents and based on needs derived from the U.S. Department of Agriculture's Thrifty Food Plan, while food expenditures are accounted for in the poverty thresholds. SNAP benefits are also fungible as purchasing food with these benefits frees up resources that can be used for other consumption, making the anti-poverty effects of the program clear.

The task is less simple for health insurance provision through Medicare, Medicaid, and private sources. First, health insurance is not inherently fungible. For example, an individual who contributes to their employer-sponsored health plan monthly but does not need medical care is not reimbursed for expending those resources; it is a cost that isn't offset by a quantifiable benefit. Including these benefits in resources as is implies that non-fungible benefits could be allocated towards non-health related expenditures, which is not possible. Second, determining the full price of health insurance without some benchmark is difficult. For one, some individuals will value protection against high medical expenses greater than those who are willing to take on more risk to have more cash resources in each period. Individuals also face different risks to their health due to age, pre-existing conditions, choice of hobbies, and genetic profile amongst other factors, meaning that generating a risk-rated insurance premium for the population is an impossible task. These specific risk factors meant that prior to the ACA some individuals would not be insured, essentially setting the price of health insurance to infinity.

For many years there were two competing methodologies for incorporating health insurance values in poverty measurement: the current SPM methodology which deducts MOOP from resources and a market-value approach. The current methodology separates MOOP into three components: reported out-of-pocket premiums paid, non-premium medical care (such as co-pays, deductibles, and prescription drugs), and over-the-counter products (such as non-prescription medication and supplies). These values

are then deducted from resources with no caps applied. While the deduction captures the impact of rising medical costs on resources, it does not explicitly capture the benefits obtained through health insurance coverage nor the role that economic security and location plays in the individual decision to access care.[3] In the latter case, an individual may be classified as in poverty due to high MOOP while one who defers care due to a lack of resources could be classified as not in poverty because they have lower MOOP.

The market-value approach adds to a family's resources an estimate of the dollar value of public and private health insurance in the market for those with health insurance coverage (Smeeding 1982; Congressional Budget Office 2012; Burkhauser, Larrimore, and Lyons 2015; Burkhauser et al. 2021). Public health insurance is valued by taking the average government contribution per enrollee across different risk, age, and location categories. The value for private insurance is calculated by modelling employer contributions to an employee's health insurance coverage.[4] While this has the advantage of putting a discrete, albeit outdated, value on health insurance, it can struggle with validity, as it allows someone's health coverage to draw them out of poverty even if they had no other income. Additionally, data availability concerns with these methods make the production of official statistics using these measures challenging (Creamer 2021).

In 2014, the implementation of the ACA led to two key changes in the provision of health insurance which impacted the way values of health insurance could be estimated. The legislation introduced guaranteed issue, which allowed all individuals to be covered by health insurance in the United States, and community rating, which meant that premiums were set based on community risk factors in market rating areas across the United States. Therefore, health insurance values could be set for an area using an age-adjusted benchmark plan in each market rating area. HIPM uses these features to set values of health insurance that are put in poverty thresholds and family resources. As a result, the impact of public health assistance programs on poverty rates can be estimated for groups such as children and the elderly (Remler, Korenman, and Hyson 2017; Korenman, Remler, and Hyson 2019b).

HIPM Data Needs

HIPM relies on the availability of individual-level information on health insurance coverage type as well as plan and premium information for the second-lowest cost Silver plan on the Health Insurance Marketplace, Medicare Advantage Prescription Drug plans, and the average government contribution to an enrollee's Medicare coverage. The second-lowest cost Silver plan is considered a benchmark health plan as any Health Insurance Marketplace subsidies are based on the value of this plan. Therefore, the rest of the paper will refer to this value as the benchmark value. Currently, historical HIPM estimates are only available from 2014 onwards due to the difficulties valuing health insurance prior to the implementation of the ACA noted above.

[3] Notably, the implicit value of health insurance is captured through the relationship between premium and non-premium MOOP.

[4] The model is based on parameters generated through linking the 1977 National Medical Care Expenditure Survey (NMCES) and the 1980 CPS ASEC and adjusted for inflation.

U.S. Census Data

The Current Population Survey Annual Social and Economic Supplement (CPS ASEC) is the source of official income, poverty, Supplemental Poverty, and health insurance coverage estimates in the United States. The CPS ASEC contains rich information on demographics, sources of income, and health insurance coverage. The health insurance component specifically collects data on current and past year health insurance coverage for multiple types of public and private health insurance and whether individuals were covered by their own plan or were dependents on plans within or outside of their household.

The CPS ASEC also contains questions on out-of-pocket medical expenses which are used to determine the medical expense deduction in the SPM. These questions have been included on the CPS ASEC since the 2010 survey year and ask:

- Last year, how much did (you/name) pay out-of-pocket for ALL health insurance premiums [covering (yourself/himself/herself) or others in the household]? Include both comprehensive and supplemental plans (such as vision and dental insurance).
- Last year, how much was paid out-of-pocket for (your/name's) OWN medical care, such as copays for doctor and dentist visits, diagnostic tests, prescription medicine, glasses and contacts, and medical supplies?
- Last year, how much was paid out-of-pocket for (your/name's) non-prescription healthcare products such as vitamins, allergy and cold medicine, pain relievers, quit smoking aids, AND anything else not yet reported?

Medicare Part B premiums are not explicitly obtained from the CPS ASEC and are estimated for those aged 65 and older using survey responses on Social Security payments and through simulations based upon tax filing status (Berchick and Jackson 2019; Creamer et al. 2022).[5] The SPM takes these values and subtracts them from a family's resources. The HIPM framework is slightly different, deducting only premium and non-premium MOOP from a family's resources. Unlike the SPM, over-the-counter expenses are not deducted in the HIPM framework.

Recently, the CPS ASEC underwent changes to the questionnaire and processing system which makes comparisons over time difficult for health insurance characteristics. In 2014, the questionnaire was updated in part to account for changes to the health insurance landscape with the ACA alongside changes to the income module. The information from these changes was incorporated into publicly available data starting with the 2018 CPS ASEC Bridge file (2017 estimates) when the CPS ASEC data processing system was updated. The survey changes added information regarding whether direct insurance coverage was purchased on or off the Health Insurance Marketplace, if it was subsidized, as well as the duration of coverage for all types of health insurance rather than just for Medicaid. As a result of these changes, there is a break in the historical time series of estimates between data years 2016 and 2017 that is presented later in the paper. The estimates presented in the paper reflect a methodology which accounts for these changes on either side of the break in series to allow estimates

[5] The CPS ASEC does ask respondents whether reported values of Social Security payments are before or after deducting Medicare premiums and how much the premiums. No information is provided on whether the deductions include Medicare Part B/C/D premiums.

to be as consistent as possible. Sensitivity tests are also conducted to determine the impact of these specific decisions on estimates.

External Data Sources

Three external data sets are used to generate the price of health insurance for the population. First, the average government contribution to a Medicare enrollee's health insurance coverage is taken from the annual Medicare Trustees report (Centers for Medicare and Medicaid Services 2022), while the price of the prescription drug supplement is obtained from the Medicare Advantage Prescription Drug Landscape files provided by the Center for Medicare and Medicaid Services (CMS). In 2021, the average government contribution to a Medicare enrollee's health insurance coverage was $15,309 (Centers for Medicare and Medicaid Services 2022). Prescription drug plans are matched to geographic areas where possible, using the county information available on the CPS ASEC public use file to determine the second lowest cost premium amongst the different plans for that area, and then expanding to the core based statistical area (CBSA) and state level if those linkages cannot be made.[6] The values of the linked prescription drug plans are then added to the average government contribution to calculate the final price of health insurance for those with Medicare.

Second, CMS provides a public-use file for the entire federal Health Insurance Marketplace as well as the 12 state-based Marketplaces and the Marketplace for the District of Columbia.[7] The benchmark plan is captured for each of the 502 market rating areas in the United States and linked to the CPS ASEC at the county level like the prescription drug plans. If market rating areas encompass more than one county, then averages are computed at the CBSA level and then the state level if there is no CBSA linkage possible. The CMS public use files also contain information on the out-of-pocket maximums for each of the benchmark marketplace plans, which serve as the cap on the deduction of non-premium medical expenditures. This data is available for all state-based Marketplaces from 2017 onwards. Data from the Robert Wood Johnson Foundation HIX Compare service is used for years prior to 2017 where CMS does not provide data on all states with state-based exchanges. The HIX Compare files are very similar to the CMS files, and the process for linking premiums for rating areas to the CPS ASEC is the same.

HIPM Methodology[8]

The primary difference between SPM rates and HIPM rates is that HIPM adds an additional health component to existing SPM poverty thresholds and resources.

Thresholds

Creating the health component of the poverty threshold (health need) requires the assignment of the type of health insurance coverage based on the reported health insurance coverage status of individuals

[6] The CPS ASEC public use file contains county information on areas with populations of 100,000 people or more provided that they do not identify smaller geographies with the other geographic information contained on the file. Information about the counties included on the 2022 CPS ASEC can be found here: https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar22.pdf

[7] Previous HIPM work has used information from the Robert Wood Johnson Foundation's HIXCompare (Health Insurance Plans Datasets - RWJF (hixcompare.org). Plan information is largely the same between the two data sources and differences in poverty rates are minimal between the two. Further information on plan selection is available on request.

[8] Please see Remler, Korenman, and Hyson (2019a) for a more detailed discussion.

in the household. Health needs are determined broadly across two groups. For those with employer-sponsored insurance (including TRICARE), direct purchase insurance, Medicaid, the uninsured, or those who only receive care from the Indian Health Service, health need is defined as the price of the benchmark plan (second lowest cost Silver plan).[9] In 48 states and the District of Columbia, premiums are set at the individual level and adjusted using the Federal age curve standards based on the age of the person in the reference year (age at time of survey – 1). Family rating adjustments are used in New York and Vermont, where individual premiums are multiplied by set amounts depending on specific household compositions (single, single with children, couple with children). The health need for those with Medicare or dual Medicare-Medicaid enrollees are assigned the average value of government spending on Medicare per beneficiary plus the price of the second cheapest Medicare Advantage premium amount.

In most cases (85.7 percent in 2021), individuals with health insurance coverage are covered by only one type of insurance plan, making it simple to assign a health need. The process is more difficult for the small remainder of cases which report 2 or more types of insurance coverage (14.3 percent in 2021).[10] The information on type of coverage is used to help determine the primary type of health insurance of individuals to allocate the correct health need. For individuals who report multiple types of coverage throughout the calendar year, the allocated health insurance type is based on a hierarchy established in Korenman, Remler, and Hyson (2019a) where public coverage is given precedence ahead of employer-sponsored insurance, direct purchase, and military and veteran's coverage. Within the hierarchy, survey reported values are prioritized, followed by logically imputed values, hot-deck imputed values, and whole-unit imputes.[11] For example, someone who reports having employer-sponsored insurance but is allocated Medicaid coverage would be classified as having employer-sponsored insurance.

Individual health needs are aggregated to the SPM unit level across two different groups: the health insurance sharing unit and the health insurance eligibility unit. The health insurance sharing unit comprises the people in the SPM unit which share the same health insurance coverage plan and is a subset of the health insurance eligibility unit which closely approximates the tax unit and captures groups of individuals within a household who are likely to be covered by the same health insurance plan. Combined, the eligibility and sharing units form the "health insurance unit" within a SPM unit. These values are then summed to create an overall health component for a given SPM unit that is then added to the SPM threshold to create the HIPM threshold. Notably, this construction allows for the possibility that some members of a SPM unit could have full health benefits from employer-sponsored insurance

[9] Notably, infants born in the same calendar year as the CPS ASEC are not assigned health insurance status but are assigned a poverty status. Following the SPM methodology, these infants are given the poverty status of the SPM unit.

[10] This is after the implementation of the CPS ASEC processing system. The percent is larger for years using the legacy processing system. Berchick and Jackson (2019) discuss differences in health insurance coverage across processing systems.

[11] This process refers to the CPS ASEC Updated Processing System. Only Medicare and Medicaid have logical imputations under the CPS ASEC Legacy Processing System. As a result, logical allocations are treated as reported values, meaning the imputation hierarchy is reported information followed by allocated information.

while others are uninsured.[12] These units have a higher likelihood of being in poverty since they have a smaller value of health benefits compared to what is added to the poverty threshold.

A consequence of adding value of health insurance to thresholds in this way is that the number of poverty thresholds is greatly increased. Currently, the SPM has over 1,000 poverty thresholds when considering the geographic adjustments across the United States and the adjustments made for homeowners with a mortgage, homeowners without a mortgage, and for renters. The HIPM thresholds would add to these by having unique thresholds for plans with health needs set by the Health Insurance or by Medicare cost and for within a county and the state average. These additional complications increase the number of potential thresholds to over 8,000. This is a weakness of the method if simplicity in measurement is an end goal.

Resources

The health resource component (health resources) is created in a similar way to health needs. First, reported individual premiums are aggregated within health insurance units. Importantly, these values are capped at the health need for the HIU. This value is then deducted from the health need for the unit. If premiums are greater than or equal to the cap, net health resources will be zero. Otherwise, the unit will receive the difference between the two values as their net health resource. Individuals who purchase health insurance directly without subsidy, are uninsured, or only receive care from the Indian Health Service receive no health resources. Individuals with part-year Medicaid coverage are given a value of 6 months of coverage following Korenman, Remler, and Hyson (2019a).[13] Therefore, they receive benefits for only half of the year.

Individuals who have direct-purchase insurance and are eligible for premium subsidies are given the value of the subsidy as their health resources. From 2014 to 2020, the subsidy is valued at the difference between the HIU need and the maximum percentage of income that can be paid for premiums based on the Health Insurance Marketplace limits. The preferred method uses the standard eligibility requirements of the ACA to set subsidy eligibility.[14] Therefore, if individuals are covered by direct purchase insurance, have incomes within 133% to 400% of their poverty guideline amount (100% in non-Medicaid expansion states), and do not live in a household with an employer sponsored plan (reflecting the ACA "family glitch"), they are deemed to be eligible for the subsidy.[15]

Beginning in 2021, the passage of the American Rescue Plan Act in 2021 extended the subsidy beyond 400% of the poverty guideline, meaning that higher income individuals are eligible for the subsidy at the highest cap (8.5% of income in 2021). In addition, the cap for individuals with income between 133% and 150% was removed, meaning that the value of the subsidy was the value of the benchmark health insurance plan. These changes are implemented in the most recent estimates in this paper and will be in place until 2025 after being extended in the Inflation Reduction Act in 2022.

[12] In 2021, 7.3 percent of SPM units had at least one member with health insurance coverage and one uninsured member.

[13] This is approach partly reflects the information that is available on the public use file and research which cautions the validity of the sub annual information Mykyta and Berchick (2021).

[14] Results using the subsidy variable are presented after the main discussion of results.

[15] Korenman, Remler, and Hyson (2019a) add an additional check by imputing undocumented status. The method presented in this paper does not make this adjustment.

Finally, non-premium MOOP is deducted from health resources after being aggregated within the health insurance unit. The value of non-premium MOOP is capped depending on the out-of-pocket maximums for the benchmark plan (on employer sponsored insurance), or the annual ACA limits set by income levels. The remaining value is then added to SPM resources (not including the existing medical expense deduction) to create overall HIPM resources. The remaining value after this procedure is added to SPM resources prior to deducting MOOP, preventing double counting of MOOP.

From a theoretical perspective, linking health resources to the price of health insurance that is added to the threshold is attractive for a few reasons. For one, concerns regarding health resources incorrectly removing people from poverty are alleviated by the fact that health resources are inherently linked to the price of health insurance that is included in the HIPM threshold. In addition, poverty rates for the insured are not sensitive to the price of health insurance that is chosen as the benchmark plan, adding a level of flexibility to the measure considering potential policy changes. As will be shown in the results, the impact on poverty rates when changing the price of health insurance would be mainly limited to those with unsubsidized health insurance coverage or the uninsured. In comparison to the SPM existing methodology, some individuals pushed into poverty by high premium and/or non-premium MOOP might no longer be categorized as in poverty due to caps on MOOP.

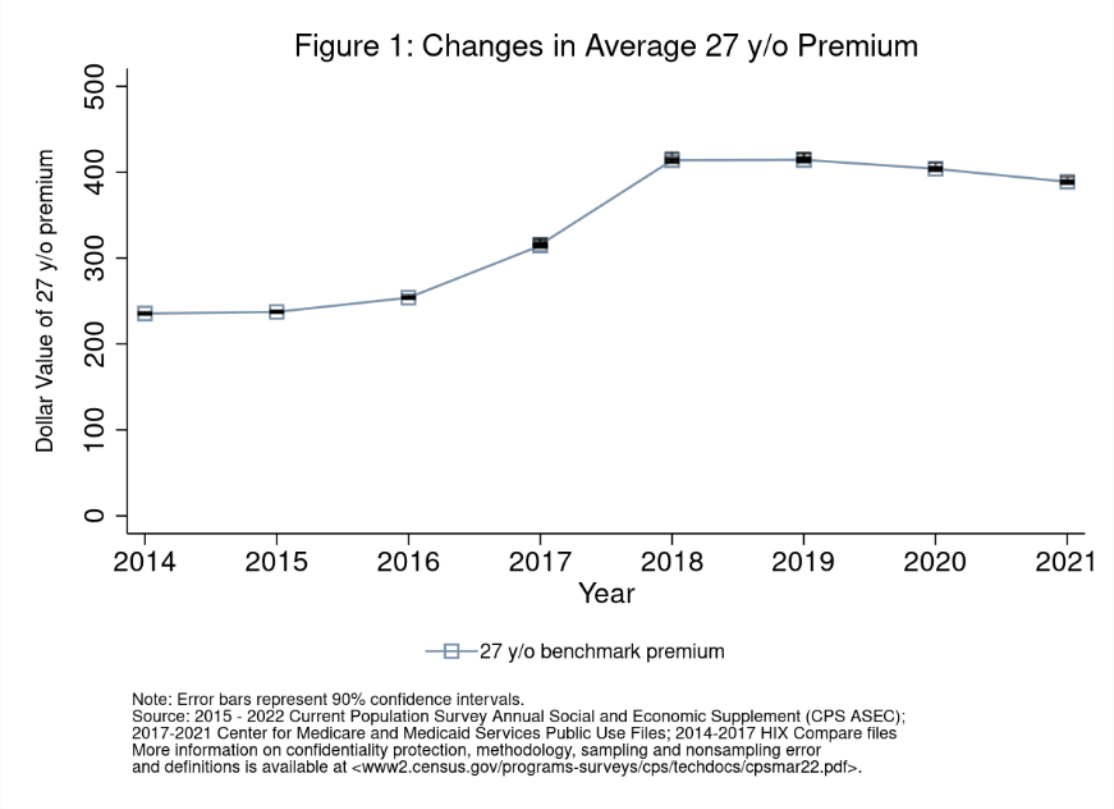
Adaptations to Original Method

The results presented in the paper introduce some adaptations to the data sources and methodology used in Remler, Korenman, and Hyson (2017) and Korenman, Remler, and Hyson (2019b). In terms of the methodology, there are slight differences in the way health insurance is assigned in cases where there are multiple types of health insurance reported. The primary difference is that this paper prioritizes Medicare higher in cases where individuals report Medicare and direct purchase insurance. In terms of data sources, using internal Census Bureau data allows for the use of health insurance units that are consistent with how missing information is imputed in the CPS ASEC while using CMS data offers consistency in using government data sources throughout. The impact of these adaptations as well as using the additional detail on geographies and subannual health insurance coverage are shown in Table 8 and Appendix Table 7.

Results

Health Insurance Characteristics

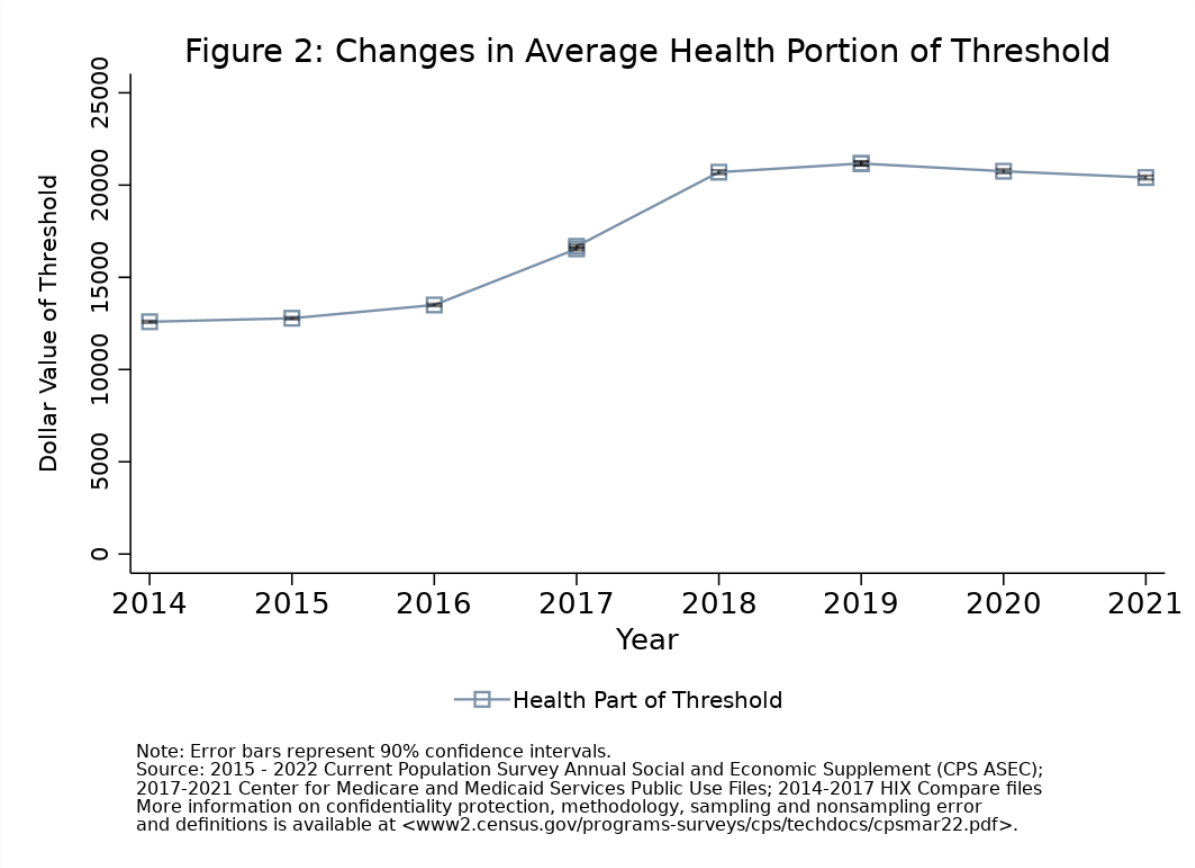
Figure 1 shows how the average monthly premium for a 27-year-old on the Health Insurance Marketplace, the basis for what is added to a family's resources and poverty thresholds for everyone without Medicare, has changed from 2014 to 2021.



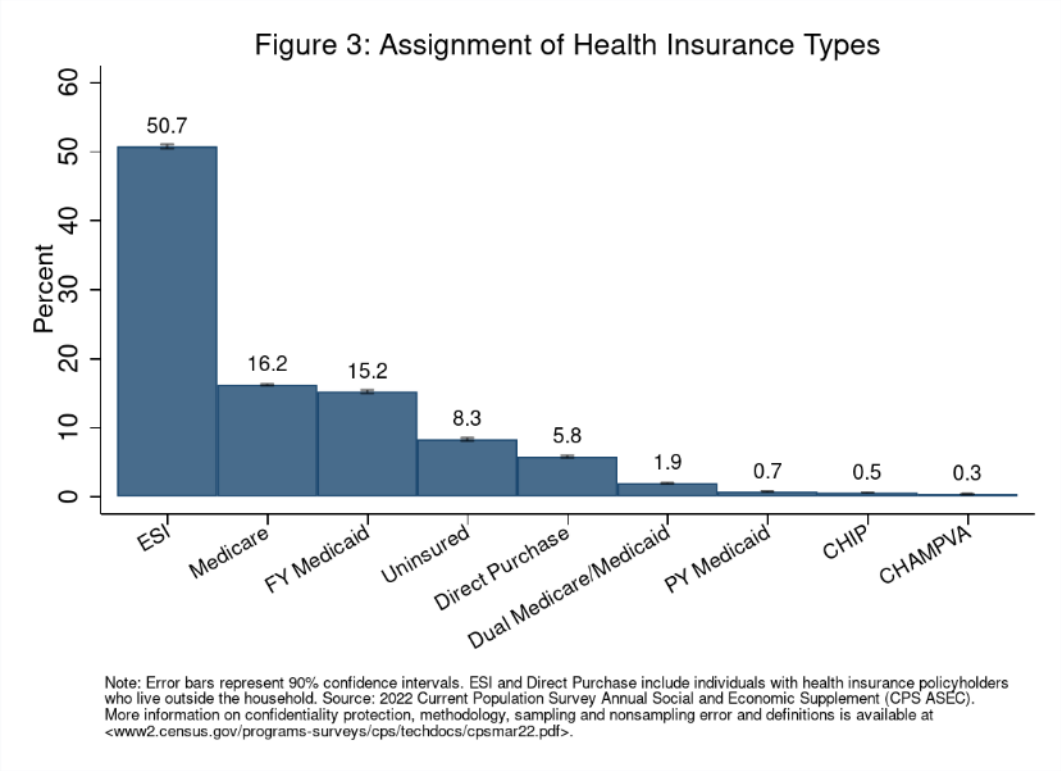
Premiums for this group were between $200 and $250 dollars for the first three years of the series. However, there were two consecutive increases in the average premiums in 2017 and 2018 as a policy change to the Affordable Care Act led to increases in benchmark plan premiums across the country (Kamal et al. 2017). Since then, premiums were not statistically different from 2018 to 2019 and have declined in 2020 and 2021.[16]

The increase in premiums is reflected in the size of the health need portion of the poverty threshold, which is annualized for all in the health insurance unit and added to the existing SPM thresholds. Figure 2 presents these averages for the overall population, again showing a large increase in the size of the health portion of the threshold from 2017 to 2019, followed by a decline from 2019 to 2021.

[16] Differences in premiums across processing systems in 2017 (due to changes in survey weights) are not statistically different.



Finally, Figure 3 examines health insurance assignment across the population for 2021. The most common health insurance assignment is employer-sponsored insurance (ESI), followed by Medicare and full-year (FY) Medicaid. The least likely health insurance assignment types are part-year (PY) Medicaid, CHIP, and CHAMPVA coverage. Results for the full time series are available upon request but are largely the same across the time series.



Historical Poverty Estimates

Table 1 presents a time series of poverty estimates by the different measures from 2014 to 2021. In 2014, the overall HIPM estimate was 1.3 percentage points higher than the overall SPM rate and 2.1 percentage points higher than the official poverty rate. HIPM rates then generally rise and fall in line with SPM rates except for 2017, where the increased cost of health needs contributed to an increase in HIPM poverty while SPM rates were not statistically different (when comparing the estimates for the legacy processing system). Since then, the HIPM rate fell alongside the SPM to 9.5 percent in 2021, 1.7 percentage points higher (5.6 million people) than the SPM and 2.1 percentage points lower (6.8 million people) than the official poverty rate. The difference in HIPM and SPM rates during this period ranged from 0.6 percentage points in 2016 to 2.3 percentage points in 2018. Appendix Table 1 presents historical HIPM estimates for those under 18, aged 18 to 64, and 65 and older. HIPM poverty rates and numbers in poverty have declined for all three groups, with the largest percentage point decrease in poverty measured for individuals under age 18 (11.8 percentage points) and the smallest measured for those 65 and older (2.7 percentage points).

Table 1: Poverty Rates by Measure, 2014-2021

	HIPM	SE	SPM	SE	Official[3]	SE
2014	16.8	(0.2)	15.6	(0.2)	14.8	(0.2)
2015	15.4	(0.2)	14.5	(0.2)	13.6	(0.2)
2016	14.6	(0.2)	14.0	(0.2)	12.7	(0.1)
2017[1]	15.3	(0.3)	13.9	(0.3)	12.3	(0.2)
2017	14.9	(0.3)	13.0	(0.3)	12.3	(0.2)
2018	15.1	(0.2)	12.8	(0.2)	11.8	(0.1)
2019[2]	13.9	(0.2)	11.7	(0.2)	10.5	(0.1)
2019	13.9	(0.2)	11.8	(0.2)	10.5	(0.1)
2020	11.3	(0.2)	9.2	(0.1)	11.5	(0.2)
2021	9.5	(0.2)	7.8	(0.1)	11.6	(0.2)

In percent. Standard errors in parentheses; generated using survey replicate weights. Note: 2017[1] represents the 2017 CPS ASEC Legacy Processing System estimate, consistent with 2014-2016 estimates. 2019[2] represents the old SPM methodology, consistent with 2017-2018 estimates. Official[3] poverty estimates include unrelated individuals under age 15 in poverty universe. Source: 2015 - 2022 Current Population Survey Annual Social and Economic Supplements (CPS ASEC); 2017-2021 Center for Medicare and Medicaid Services Public Use Files; 2014-2017 HIX Compare files.

Another metric of interest is the percentage of people who have incomes below 150% of the poverty threshold or have incomes below 50% of the poverty threshold). Table 2 presents the results for each across the HIPM and SPM, where HIPM near and deep poverty rates are higher than their SPM counterparts for most years.[17] Both measures experienced substantial declines in near and deep poverty over the time series. Meanwhile, HIPM deep poverty rates have been consistently higher than SPM deep poverty rates throughout the series. While there are many reasons why near poverty could increase with HIPM, the story is clearer for the deep poverty estimates where the uninsured receive no health resources, meaning that their existing resources are compared to the new threshold which includes the value of a benchmark health plan.

Table 2: Near and Deep Poverty Rates by Measure, 2014-2021

	HIPM				**SPM**			
	Below 150% Poverty	SE	Below 50% Poverty	SE	Below 150% Poverty	SE	Below 50% Poverty	SE
2014	32.8	(0.2)	6.4	(0.1)	32.5	(0.2)	5.1	(0.1)
2015	31.1	(0.2)	5.8	(0.1)	31.1	(0.2)	5.0	(0.1)
2016	29.6	(0.2)	5.7	(0.1)	29.4	(0.2)	4.9	(0.1)
2017[1]	30.1	(0.2)	6.2	(0.1)	29.4	(0.2)	4.9	(0.1)
2017	29.6	(0.2)	5.7	(0.1)	28.7	(0.2)	4.4	(0.1)
2018	29.2	(0.2)	6.2	(0.1)	27.7	(0.2)	4.2	(0.1)
2019[2]	27.5	(0.2)	5.7	(0.1)	25.7	(0.2)	4.0	(0.1)
2019	27.5	(0.2)	5.7	(0.1)	25.8	(0.2)	4.0	(0.1)

[17] HIPM near poverty rates and SPM near poverty rates are not statistically different in 2015.

2020	23.5	(0.2)	4.8	(0.1)	21.7	(0.2)	3.3	(0.1)
2021	20.8	(0.2)	3.9	(0.1)	19.4	(0.2)	2.9	(0.1)

In percent. Standard errors in parentheses; generated using survey replicate weights. Note: 2017[1] represents the 2017 CPS ASEC Legacy Processing System estimate, consistent with 2014-2016 estimates. 2019[2] represents the old SPM methodology, consistent with 2017-2018 estimates. Source: 2015 - 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2017-2021 Center for Medicare and Medicaid Services Public Use Files; 2014-2017 HIX Compare files.

2021 HIPM v. SPM comparisons

The rest of the results contained in the paper will focus on comparisons between the SPM and HIPM in 2021. Table 3 presents estimates for each measure at the national level across selected characteristics. Moving to HIPM from SPM increases poverty for all selected groups except those aged 65 and older, where HIPM rates were lower than SPM rates. One difference for the population aged 65 and older is that Medicare part B premiums are not deducted from resources in HIPM like in the SPM.

Differences between measures also vary by race and Hispanic origin groups. HIPM poverty rates for Hispanic individuals were 5.0 percentage points higher than their SPM rates. This change was over 2.5 times as large as the change in poverty rates across methodologies for Black individuals and is notable since the SPM rates for Black and Hispanic individuals were not statistically different in 2021. This reflects unique challenges related to language and cultural barriers as well as the role citizenship plays in program eligibility. HIPM rates for non-citizens were 7.2 percentage points higher than SPM rates.

Educational attainment gradients exist as well, as the difference in HIPM and SPM poverty rates for those without a high school diploma (5.3 percentage points) was substantially larger than for those with a bachelor's degree or higher (0.3 percentage points). The gap between these groups grew as well, with the differential for HIPM being 20.4 percentage points compared to 15.4 percentage points for SPM. Regional effects were present as the largest difference in poverty rates by region was for the South (2.8 percentage points), over three times as large as the difference between the two measures for the Midwest (0.9 percentage points) and twice as large as the West (1.3 percentage points). This reflects the fact that the South has the highest HIPM rates compared to the other regions.

Table 3: Comparison of Poverty Measures for Selected Characteristics in 2021

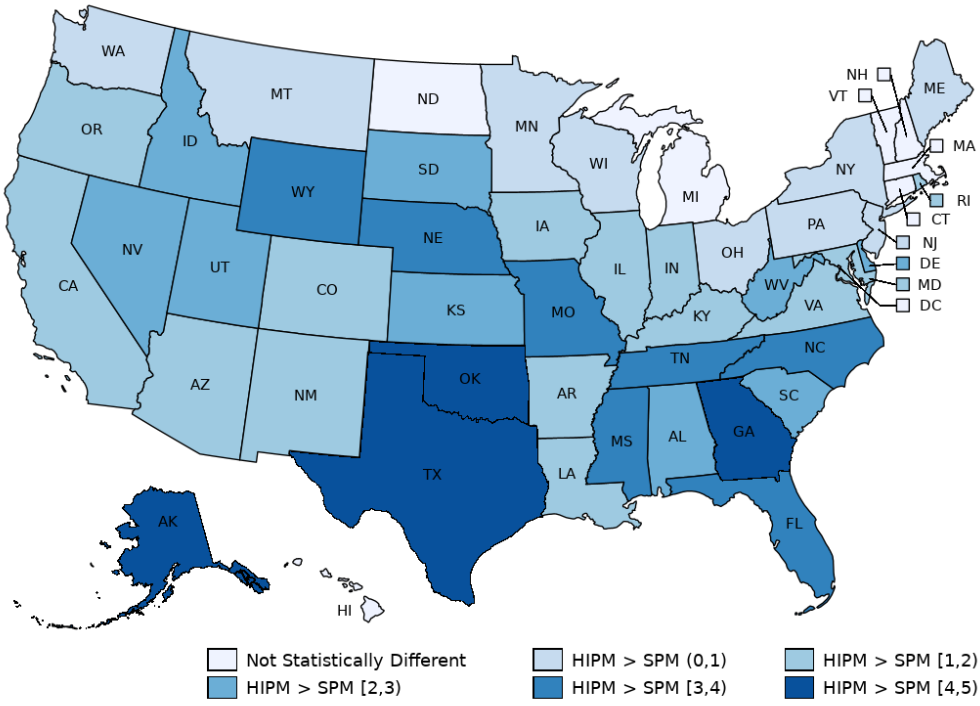
	HIPM	SE	SPM	SE	Difference	SE
All People	9.5	(0.2)	7.8	(0.1)	1.7*	(0.1)
Male	9.5	(0.2)	7.6	(0.2)	1.8*	(0.1)
Female	9.5	(0.2)	7.9	(0.1)	1.6*	(0.1)
Under 18 years	7.4	(0.2)	5.2	(0.2)	2.2*	(0.1)
18 to 64 years	10.0	(0.2)	7.9	(0.2)	2.1*	(0.1)
65 years and older	10.3	(0.3)	10.7	(0.3)	-0.4*	(0.1)
White, not Hispanic	6.4	(0.2)	5.7	(0.1)	0.7*	(0.1)
Black	13.0	(0.5)	11.2	(0.5)	1.8*	(0.3)
Asian	10.4	(0.5)	9.5	(0.5)	1.0*	(0.3)
American Indian and Alaska Native	15.9	(1.6)	12.4	(1.5)	3.5*	(0.8)
Two or more races	8.2	(0.7)	7.3	(0.8)	0.9*	(0.3)
Hispanic (any race)	16.2	(0.4)	11.2	(0.3)	5.0*	(0.3)
Native born	8.1	(0.1)	6.9	(0.1)	1.2*	(0.1)
Foreign born	17.5	(0.5)	13.1	(0.4)	4.4*	(0.3)
Naturalized citizen	11.8	(0.5)	10.3	(0.5)	1.5*	(0.3)
Not a citizen	23.0	(0.8)	15.8	(0.6)	7.2*	(0.5)
No high school diploma	25.0	(0.6)	19.7	(0.6)	5.3*	(0.4)
High school, no college	12.3	(0.3)	10.3	(0.3)	2.0*	(0.2)
Some college, no degree	8.3	(0.2)	7.3	(0.2)	1.0*	(0.1)
Bachelor's degree or higher	4.7	(0.1)	4.3	(0.1)	0.3*	(0.1)
All workers	5.6	(0.1)	3.8	(0.1)	1.8*	(0.1)
Worked full-time, year-round	3.3	(0.1)	2.0	(0.1)	1.3*	(0.1)
Less than full-time, year-round	11.8	(0.3)	8.7	(0.3)	3.1*	(0.2)
Did not work at least 1 week	24.7	(0.5)	21.5	(0.4)	3.2*	(0.2)
Owner	6.2	(0.1)	5.2	(0.1)	1.0*	(0.1)
Owner/mortgage	4.2	(0.2)	3.5	(0.1)	0.8*	(0.1)
Owner/no mortgage/rent-free	9.3	(0.3)	8.0	(0.2)	1.3*	(0.2)
Renter	16.8	(0.4)	13.5	(0.3)	3.3*	(0.2)
Inside Metropolitan Statistical Areas	9.5	(0.2)	7.9	(0.1)	1.6*	(0.1)
Inside principal cities	12.2	(0.3)	9.8	(0.3)	2.3*	(0.2)
Outside principal cities	8.0	(0.2)	6.8	(0.2)	1.2*	(0.1)
Outside MSAs	9.2	(0.4)	7.1	(0.4)	2.1*	(0.2)
Northeast	8.5	(0.4)	7.6	(0.4)	0.9*	(0.2)
Midwest	6.4	(0.3)	5.6	(0.2)	0.9*	(0.1)
South	11.1	(0.3)	8.4	(0.2)	2.8*	(0.2)
West	10.2	(0.3)	8.9	(0.3)	1.3*	(0.2)

In percent. * represents statistically significant differences at the 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. Note: Some differences due to rounding. Health Insurance coverage characteristics do not include infants born in the calendar year. Universe for education variables is aged 25 and older; universe for working and disability variables aged 18 to 64. Some differences present due to rounding. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Differences in Poverty Measures by State

The Census Bureau recommends using three-year averages of CPS ASEC data to compare poverty rates across states.[18] Using the 2020 to 2022 CPS ASEC, Figure 4 (Appendix Table 3) shows how HIPM and SPM rates vary across the United States. 43 states had HIPM rates which were higher than SPM rates, while 7 states and the District of Columbia had rates which are not statistically different.[19]

Figure 4: Difference in Poverty Rates by State
Using the SPM and HIPM Poverty Measure: 3-Year Average 2019 to 2021



Intervals in percentage points. Implementation of 2020 Census-based population controls; more information is available in Shrider, Semega, and Starkey (2022).
Source: U.S. Census Bureau, Current Population Survey, 2020 to 2022 Annual Social and Economic Supplements (CPS ASEC).
More information on confidentiality protection, methodology, sampling and nonsampling error and definitions is available at <www2.census.gov/programs-surveys/cps/techdocs/cpsmar22.pdf>.

Differences by Health Insurance Coverage Type

Table 4 (Appendix Table 2) presents differences in poverty rates across measures for the different health insurance coverage types. Percentage point differences in poverty measures were large for those with part-year Medicaid (10.8 percentage points), CHIP (6.1 percentage points), and the uninsured (16.1 percentage points). The uninsured also had the largest numerical change in poverty, with 4.4 million more uninsured individuals classified in HIPM poverty than in SPM poverty. The large difference between the two measures reflects the fact that the HIPM methodology does not assign a value of health insurance in resources to match the addition in poverty thresholds. Similarly, individuals with

[18] Estimates from the 2020 CPS ASEC reflect the implementation of 2020 Census-based controls. More information is available in Shrider, Semega, and Starkey (2022).
[19] These states are Connecticut, Hawaii, Massachusetts, Michigan, New Hampshire, North Dakota, and Vermont.

part-year Medicaid are only assigned half of the value of a full year plan in resources, and therefore have higher HIPM poverty rates.[20]

Those with employer-sponsored insurance, full-year Medicaid, and Direct Purchase insurance had small to modest increases in poverty rates across measures which result from SPM units comprised of members with employer-sponsored insurance and uninsured individuals or those who did not receive ACA subsidies. The numerical change in poverty rates for those with full-year Medicaid was the second largest change between the two measures for the different types of health insurance coverage, with 693,000 more individuals with full-year Medicaid being classified in HIPM poverty than SPM poverty. HIPM rates for those with Medicare are 0.7 percentage points lower than comparable SPM rates, reflecting the impact of HIPM capping premium and non-premium MOOP.

Table 4: Comparison of Poverty Measures for Types of Health Insurance Coverage in 2021

	HIPM	SE	SPM	SE	Difference	SE
Employer-sponsored	2.5	(0.1)	2.4	(0.1)	0.1*	(0.0)
Direct Purchase	14.2	(0.7)	12.1	(0.6)	2.1*	(0.4)
Medicare	9.6	(0.3)	10.3	(0.3)	-0.7*	(0.1)
Full Year Medicaid	15.4	(0.4)	14.0	(0.4)	1.4*	(0.2)
Part Year Medicaid	28.5	(2.2)	17.7	(1.9)	10.8*	(1.5)
CHIP	16.5	(1.9)	10.4	(1.7)	6.1*	(1.2)
CHAMPVA	7.3	(1.5)	7.4	(1.5)	-0.1	(0.1)
Uninsured	33.7	(0.8)	17.7	(0.6)	16.1*	(0.6)
Dual Medicare/Medicaid	20.5	(0.9)	21.1	(0.9)	-0.6	(0.4)

In percent. * represents statistically significant differences at the 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. Note: Employer-sponsored and direct purchase insurance includes coverage outside the household. TRICARE is included in employer sponsored insurance. Uninsured includes those without health insurance coverage those with Indian Health Service coverage alone in 2021. Some differences present due to rounding. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Impact of Medicare, Medicaid, and Subsidies on Poverty

Finally, a key advantage of HIPM is the ability to measure the explicit impact of public health assistance programs on poverty rates, holding all else equal. Table 5 presents estimates of the impact of Medicare, Medicaid, and the subsidies for eligible participants in the Health Insurance Marketplace. In 2021, Medicare reduced HIPM rates for recipients by 5.8 percentage points (19.1 million people), which was the largest impact amongst the different programs. Medicaid coverage reduced HIPM rates for recipients by 4.2 percentage points (13.8 million), while Health Insurance Marketplace subsidies reduced poverty by 0.4 percentage points (1.3 million). Medicare had the largest impact of the three policies on older individuals' poverty rates (24.9 percentage points), while Medicaid has the largest impact for children and those aged 18 to 64. Overall, Medicare and Medicaid are ranked second and third behind Social Security on most impactful anti-poverty programs in 2021, while Marketplace subsidies ranked further down between housing subsidies and school lunch (Appendix Table 4 and 5). Appendix Tables 4

[20] The impact of using six months of receipt for all part-year Medicaid recipients rather than reported months of coverage is approximately 1.0 percentage point for those with part-year coverage. Overall poverty rates are not statistically different between the two measures (Appendix Table 5).

and 5 also show the impact of adding capped values of premium and non-premium MOOP to resources, with 1.3 million and 1.7 million people being classified as in poverty respectively.

Table 5: Impact of Programs on Poverty Rates by Age Group, 2021

	Number	SE	Percentage Point Difference	SE
Medicare				
All	-19,100*	(308)	-5.8*	(0.09)
Under 18 years	-823*	(65)	-1.1*	(0.09)
18 to 64 years	-4,267*	(149)	-2.1*	(0.07)
65 years and older	-14,010*	(231)	-24.9*	(0.41)
Medicaid				
All	-13,750*	(371)	-4.2*	(0.11)
Under 18 years	-4,925*	(173)	-6.7*	(0.24)
18 to 64 years	-8,382*	(227)	-4.2*	(0.11)
65 years and older	-446*	(35)	-0.8*	(0.06)
Marketplace Subsidies				
All	-1,340*	(86)	-0.4*	(0.03)
Under 18 years	-165*	(23)	-0.2*	(0.03)
18 to 64 years	-1,137*	(75)	-0.6*	(0.04)
65 years and older	-38*	(11)	-0.1*	(0.02)

Numbers in thousands. * represents statistically significant differences at the 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. All estimates statistically significant at 90% level. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Composition of HIPM vs. SPM Poverty

Table 6 compares the share of those in poverty using HIPM and SPM which belong to different demographic and health insurance coverage groups in poverty using HIPM and SPM. Most of the differences between the measures can be explained by three sets of estimates. First, the insured population made up a smaller percentage of the overall population in HIPM poverty than it did for the population in SPM poverty (10.7 percentage point difference). Notably, Hispanic individuals made up more of the population in HIPM poverty than SPM poverty (5.2 percentage point difference). Second, older individuals, non-workers, and those covered by health insurance made up a smaller share of the population than was the case in the SPM.[21] As a result, the population in HIPM poverty is more likely to be age 64 and younger, working, and uninsured compared to those in SPM poverty. In contrast to some concerns that the SPM is capturing a population that is too "well-off," the population in HIPM poverty had smaller share of older individuals in poverty due to high medical expenses and a smaller share of individuals with some college, no degree or a bachelor's degree or higher. Public assistance receipt rates vary too, with a larger share of the population in HIPM poverty reporting receipt of school lunch and WIC (Appendix Table 6).

[21] The difference in the share in poverty by measure for the aged 65 and older and non-workers is not statistically different.

Table 6: Distribution of Population in Poverty by Selected Characteristics, 2021

	HIPM Poverty	SE	SPM Poverty	SE	Difference	SE
Male	49.2	(0.4)	48.3	(0.5)	0.9	(0.6)
Female	50.8	(0.4)	51.7	(0.5)	-0.9	(0.6)
Under 18 years	17.4	(0.4)	15.0	(0.5)	2.4*	(0.7)
18 to 64 years	64.1	(0.5)	61.6	(0.6)	2.5*	(0.8)
65 years and older	18.5	(0.4)	23.5	(0.5)	-4.9*	(0.7)
White, not Hispanic	40.0	(0.8)	43.6	(0.8)	-3.6*	(1.1)
Black	17.1	(0.6)	18.0	(0.6)	-0.8	(0.9)
Asian	6.7	(0.3)	7.4	(0.4)	-0.7	(0.5)
American Indian and Alaska Native	2.1	(0.2)	2.0	(0.3)	0.1	(0.4)
Two or more races	2.4	(0.2)	2.6	(0.3)	-0.2	(0.4)
Hispanic (any race)	32.7	(0.7)	27.5	(0.7)	5.2*	(1.0)
No high school diploma	16.0	(0.4)	15.4	(0.5)	0.6	(0.6)
High school, no college	25.5	(0.5)	25.9	(0.5)	-0.4	(0.7)
Some college, no degree	15.1	(0.4)	16.2	(0.4)	-1.1*	(0.6)
Bachelor's degree or higher	12.8	(0.3)	14.4	(0.4)	-1.7*	(0.5)
All Workers	29.3	(0.5)	24.7	(0.5)	4.6*	(0.7)
Worked full-time, year-round	12.1	(0.4)	8.9	(0.3)	3.3*	(0.5)
Less than full-time, year-round	17.2	(0.4)	15.8	(0.5)	1.4*	(0.6)
Did not work at least 1 week	70.7	(0.5)	75.3	(0.5)	-4.6*	(0.7)
Insured	70.4	(0.7)	81.1	(0.6)	-10.7*	(0.9)
Any private plan	27.7	(0.6)	32.5	(0.7)	-4.8*	(0.9)
Any public plan	49.0	(0.7)	57.0	(0.7)	-8.0*	(1.0)
Uninsured	29.4	(0.7)	18.8	(0.6)	10.6*	(0.9)
In Excellent, very good or good health	79.3	(0.5)	76.8	(0.6)	2.5*	(0.8)
Owner/mortgage	18.9	(0.6)	18.8	(0.6)	0.1	(0.9)
Owner/no mortgage/rent-free	26.6	(0.7)	27.9	(0.8)	-1.2	(1.0)
Renter	54.5	(0.8)	53.4	(0.8)	1.1	(1.2)
Inside Metropolitan Statistical Areas	87.5	(0.8)	88.2	(0.8)	-0.7	(1.1)
Inside principal cities	40.8	(1.0)	40.2	(1.0)	0.7	(1.4)
Outside principal cities	46.7	(0.9)	48.0	(1.0)	-1.4	(1.3)
Outside MSAs	12.5	(0.8)	11.8	(0.8)	0.7	(1.1)
Northeast	15.4	(0.6)	16.8	(0.7)	-1.4	(1.0)
Midwest	14.0	(0.6)	14.8	(0.6)	-0.8	(0.8)
South	45.2	(0.8)	41.3	(0.8)	3.9*	(1.1)
West	25.4	(0.6)	27.1	(0.7)	-1.7*	(1.0)

In percent. * represents statistically significant differences at the 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. Note: Health Insurance coverage characteristics do not include infants born in the calendar year. Universe for education variables is aged 25 and older; universe for working and disability variables aged 18 to 64. Some differences present due to rounding. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

The focus then turns to those individuals who are classified as in poverty by only one of the measures. In 2021, 2.6 percent (8.6 million) of the population was classified in poverty by HIPM or SPM alone, with most only in HIPM poverty (82.3 percent). Table 7 presents the distribution of the populations in

poverty by one measure across the selected characteristics. The primary difference between the two populations is that nearly all of those who are only in SPM poverty had health insurance coverage (98.8 percent) in 2021, with a higher rate of public coverage than private coverage. In addition, HIPM only poverty was comprised more of uninsured (61.6 percent) and Hispanic individuals (47.8 percent). The differences in composition between these groups were sometimes large, especially for age and Hispanic origin.

Table 7: Distribution of Individuals in Poverty by One Measure and Not Another, 2021

Characteristic	HIPM Only	SE	SPM Only	SE	Difference	SE
Male	51.0	(1.0)	42.3	(1.7)	8.7*	(2.4)
Female	49.0	(1.0)	57.7	(1.7)	-8.7*	(2.4)
Under 18 years	25.0	(0.8)	11.8	(1.6)	13.2*	(1.6)
18 to 64 years	68.8	(0.9)	44.2	(2.4)	24.6*	(2.3)
65 years and older	6.2	(0.5)	44.0	(2.7)	-37.8*	(2.2)
White, not Hispanic	31.1	(1.0)	58.3	(3.4)	-27.2*	(2.3)
Black	14.0	(0.8)	16.4	(2.2)	2.5	(1.7)
Asian	4.1	(0.4)	6.3	(1.4)	-2.2*	(1.0)
American Indian and Alaska Native	2.3	(0.3)	1.2	(0.6)	1.1*	(0.4)
Two or more races	1.7	(0.3)	2.8	(1.2)	1.0	(0.8)
Hispanic (any race)	47.8	(1.0)	16.1	(2.6)	31.7*	(1.8)
No high school diploma	18.1	(0.7)	15.3	(1.7)	-2.8	(1.7)
High school, no college	24.5	(0.9)	28.5	(2.0)	-3.9*	(2.2)
Some college, no degree	12.0	(0.7)	19.5	(2.0)	-7.5*	(1.8)
Bachelor's degree or higher	8.2	(0.6)	19.1	(2.3)	-11.0*	(1.9)
All Workers	45.5	(1.0)	26.9	(2.1)	18.6*	(2.2)
Worked full-time, year-round	24.1	(0.9)	13.2	(1.6)	10.8*	(1.7)
Less than full-time, year-round	21.4	(0.8)	13.6	(1.6)	7.7*	(1.7)
Did not work at least 1 week	54.5	(1.0)	73.1	(2.1)	-18.6*	(2.2)
Insured	38.0	(1.0)	98.8	(0.5)	-60.9*	(1.1)
Any private plan	15.1	(0.7)	49.8	(3.1)	-34.7*	(2.3)
Any public plan	24.4	(0.9)	68.9	(3.1)	-44.5*	(2.2)
Uninsured	61.6	(1.0)	1.2	(0.5)	60.5*	(1.1)
In Excellent, very good or good health	86.3	(0.7)	70.4	(2.3)	15.9*	(2.1)
Owner/mortgage	20.0	(0.8)	22.5	(2.8)	2.5	(2.0)
Owner/no mortgage/rent-free	24.0	(0.9)	35.2	(2.7)	-11.2*	(2.2)
Renter	56.0	(1.0)	42.3	(3.3)	13.7*	(2.4)
Inside Metropolitan Statistical Areas	84.1	(0.7)	83.4	(2.3)	-0.7	(1.6)
Inside principal cities	41.5	(1.0)	32.9	(2.9)	8.6*	(2.3)
Outside principal cities	42.6	(1.0)	50.6	(2.8)	-7.9*	(2.4)
Outside MSAs	15.9	(0.7)	16.6	(2.3)	0.7	(1.6)
Northeast	11.1	(0.6)	18.5	(3.0)	-7.5*	(1.8)
Midwest	12.0	(0.7)	17.7	(2.4)	-5.7*	(1.8)
South	58.4	(1.0)	41.8	(3.0)	16.6*	(2.4)
West	18.6	(0.7)	22.0	(2.7)	-3.5*	(1.9)
Weighted Observations (in thousands)	7,112	(262)	1,527	(93)		

In percent. * represents statistically significant differences at the 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. Note: Health Insurance coverage characteristics do not include infants born in the calendar year. Universe for education variables is aged 25 and older; universe for working and disability variables aged 18 to 64. Some differences present due to rounding. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Discussion

Overall, the estimates provide additional details of how the populations in poverty differ between the SPM and HIPM. Due to the mechanics of the methodology, changes in poverty rates across measures are sensitive to the type of health insurance that is assigned to units as well as the impact of caps on premium and non-premium MOOP. In the case of health insurance assignment, SPM units comprised of members with full-year coverage are less likely to have changes in their poverty status between the two measures because the additional value added to poverty thresholds is matched by their resources increasing by the same value (minus any premium and non-premium MOOP). Groups with part-year Medicaid, unsubsidized direct purchase insurance, and the uninsured are more exposed to changes in poverty status because the value added to the thresholds is not fully matched in a unit's resources. Units with a combination of the two scenarios complicate matters, as some health benefits are covered. [22] In these cases, HIPM rates are likely to be higher than SPM rates since units would have fewer benefits compared to their poverty threshold.

Differences between measures when considering deducting premium and non-premium MOOP are mainly driven by MOOP values being capped for those with health insurance coverage. Holding all else constant, it would be expected that HIPM rates would be lower than SPM rates for individuals with high reported premium and non-premium MOOP since fewer resources would be deducted. Poverty rates for the uninsured are less impacted by this feature since their MOOP is not capped. However, since over-the-counter expenses are not deducted from resources in HIPM, poverty rates could theoretically be lower for these individuals.

As a result of these features, the composition of poverty changes in important ways. The treatment of Medicare in HIPM reduces poverty rates by 5.8 percentage points overall, leading to a lower HIPM rate for Medicare recipients when compared to the SPM (0.7 percentage point difference). The share of the population in HIPM poverty that is older than 65 when compared to the SPM is lower as well. The population in HIPM poverty had lower rates of health insurance coverage and were less likely to have some college experience or a bachelor's degree or higher, although there are higher rates of individuals who are working. Lastly, since a significant indicator of poverty status is health insurance coverage, those without coverage make up a larger proportion of the population in HIPM poverty than SPM poverty. Because of this, HIPM poverty rates are larger than SPM poverty rates for non-citizens and for Hispanic individuals.

The sensitivity of the HIPM methodology to health insurance coverage is a potential weakness as it does not consider the possibility of uncompensated care for the uninsured (Garthwaite, Gross and Notowidigdo 2018). In addition, individuals with Indian Health Service coverage have a range of services

[22] In 2021, there were approximately 7.3 percent of units were comprised of at least one member with health insurance coverage and at least one member who was uninsured.

available to them that recipients are likely to value at an amount greater than zero. Further research is needed to determine whether the current treatment of health benefits for the uninsured is the most accurate.

Sensitivity Tests

The above estimates can be considered the preferred method as it meets the requirements of the Census Bureau production guideline and disclosure avoidance rules. Table 8 presents two sets of alternative estimates evaluating how sensitive the base HIPM method is to different assignments of health insurance coverage in units reporting more than one type of health insurance coverage and using the counties identified on the internal CPS ASEC file rather than those on the public use file.[23] The poverty rates are shown for the overall population as well as the major age categories, race and Hispanic origin groups, and for health insurance coverage type.

Table 8: Sensitivity Tests, 2021

	Base HIPM Rate	SE	Alternative HI Assignment	SE	Internal File Counties	SE
All People	9.5	(0.2)	9.5*	(0.2)	9.4*	(0.2)
Under 18 years	7.4	(0.2)	7.4	(0.2)	7.3*	(0.2)
18 to 64 years	10.0	(0.2)	10.1*	(0.2)	9.9*	(0.2)
65 years and older	10.3	(0.3)	10.3	(0.3)	10.3*	(0.3)
White, not Hispanic	6.4	(0.2)	6.4	(0.2)	6.3*	(0.2)
Black	13.0	(0.5)	13.1*	(0.5)	12.9*	(0.5)
Asian	10.4	(0.5)	10.5	(0.6)	10.5	(0.5)
American Indian and Alaska Native	15.9	(0.5)	15.9	(1.6)	15.7*	(1.6)
Two or more races	8.2	(0.7)	8.3	(0.7)	8.2	(0.7)
Hispanic (any race)	16.2	(0.4)	16.3*	(0.4)	16.0*	(0.4)
With private insurance	4.0	(0.1)	4.1*	(0.1)	4.0*	(0.1)
With public, no private insurance	15.8	(0.3)	15.8	(0.3)	15.6*	(0.3)
Not insured	33.2	(0.8)	33.2	(0.8)	32.4*	(0.8)

In percent. * represents poverty rates statistically different from base rate at 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Focusing first on the alternative assignment of health insurance type, the alternative estimates presented follow the methodology presented in Remler, Korenman, and Hyson (2019a) which treats allocated responses slightly differently than the method used for the base rates. As a result, the original methodology is more likely to assign private health coverage to units with public and private coverage than the base rates presented here. While there are several statistically significant differences in the presented characteristics, the magnitude rounds to 0.1 percentage points in those cases, and do not meaningfully change the presented estimates.

[23] There are 329 state-county identifiers on the public use file and approximately 1,300 on the internal file.

Meanwhile, using all counties identified on the CPS ASEC internal file lowers the overall HIPM rate by a tenth of a percentage point, with statistically significant effects that range from 0.1 to 0.8 percentage points across the presented demographic groups. The differences with this alternative stem from the ability to link all counties on the internal CPS ASEC data, meaning there is a mix of counties where the linkage either lowers (for urban counties) or raises premiums. In 2021, more changes are seen for urban areas, which are known to have lower premiums than rural areas.[24]

In addition to these changes, Appendix Table 7 shows additional sensitivity tests for survey specific decisions in the methodology regarding how health insurance sharing units are constructed as well as using the Marketplace subsidy question and the usage of sub annual information on Medicaid coverage. The most impactful change is 0.2 percentage points when using the Marketplace subsidy question instead of the imputation method. This is because the imputation method identifies more individuals eligible for the subsidy than the question indicates. The other alternatives do not have any statistically significant impacts on poverty rates for the selected characteristics.

Conclusions and Next Steps

The continual effort to accurately measure poverty and evaluate the anti-poverty impacts of different polices has led to many years of research and discussion on the best ways to achieve these goals. The current official and Supplemental poverty measures provide different benchmarks of economic well-being in the United States, measuring poverty either through money income or a wider assortment of resources that captures different policies aimed at the low-income population. Importantly, neither measure captures the explicit value and anti-poverty impact that arises from the provision of Medicare and Medicaid.

The Health Inclusive Poverty Measure (HIPM) allows researchers to achieve both goals. HIPM builds on the existing SPM framework and incorporates a value of health insurance in poverty thresholds and in an individual's resources. This key addition enables researchers to evaluate the explicit impact of Medicare and Medicaid on poverty rates. The methodology also incorporates caps on premium and non-premium medical expenses, addressing some concerns with the SPM methodology deducting all reported out-of-pocket medical expenses from resources.

In 2021, the overall HIPM rate was 9.5 percent, 1.7 percentage points higher than the SPM rate of 7.8 percent and 2.1 percentage points lower than the official poverty rate. The 2021 rate follows a decline in HIPM poverty rates of 7.4 percentage points from 16.8 percent in 2014, the first year HIPM poverty rates are available in this series. Differences in rates across poverty measures vary by the presented characteristics and are reflective of the type of health insurance coverage assigned to individuals in the household. These comparisons underscore that the important difference between the SPM and HIPM are for those who are uninsured, have part-year Medicaid coverage, or have unsubsidized direct purchase coverage. Finally, the explicit impact of health insurance on poverty rates is shown at the national level with HIPM rates reduced by 5.8 percentage points for those with Medicare, followed by Medicaid (4.2 percentage points) and the ACA subsidies (0.4 percentage points). The impact of Medicare on poverty is ranked second only to Social Security when compared to the anti-poverty reduction measures listed in Appendix Tables 4 and 5.

[24] A full set of results are available on request.

Overall, the estimates in this paper show that the biggest impact of moving from SPM to HIPM for the total U.S. population would be for those without health insurance coverage. Importantly, changes made to the measure to meet production requirements lead to only small differences when compared to the original methodology. More research is necessary to determine the viability of extending the presented time series back to 2009 to reflect historical SPM estimates. In addition, further research on valuing uncompensated care for the uninsured is needed to determine whether the measure is too sensitive at classifying the uninsured in poverty. Going forward, consistent, timely access to data on Health Insurance Marketplace plans and Medicare Part D plans would enable the production of HIPM poverty rates alongside the current poverty measures produced at the Census Bureau.

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Appendix

Appendix Table 1: Poverty Rates by Age Category, 2014-2021

	All				Under 18 years old				18 to 64 years old				65 years and older			
	Number	SE	Percent	SE	Number	SE	Percent	SE	Number	SE	Percent	SE	Number	SE	Percent	SE
2014	53,240	(560)	16.8	(0.2)	14,190	(236)	19.2	(0.1)	33,100	(362)	16.9	(0.2)	5,946	(124)	12.9	(0.4)
2015	48,970	(577)	15.4	(0.2)	13,260	(243)	17.9	(0.1)	30,070	(377)	15.3	(0.2)	5,635	(132)	11.9	(0.5)
2016	46,630	(498)	14.6	(0.2)	12,340	(219)	16.7	(0.1)	28,140	(344)	14.3	(0.2)	6,140	(141)	12.5	(0.5)
2017[1]	48,000	(639)	15.3	(0.3)	12,890	(247)	17.4	(0.2)	28,870	(423)	14.6	(0.2)	6,241	(156)	12.2	(0.5)
2017	49,320	(615)	14.9	(0.3)	13,340	(251)	18.0	(0.2)	29,650	(402)	15.0	(0.2)	6,332	(144)	12.4	(0.5)
2018	49,020	(594)	15.1	(0.2)	12,640	(252)	17.1	(0.1)	29,710	(381)	15.0	(0.2)	6,680	(139)	12.7	(0.4)
2019[2]	45,100	(560)	13.8	(0.2)	11,400	(224)	15.6	(0.1)	27,280	(385)	13.8	(0.2)	6,431	(151)	11.8	(0.5)
2019	45,250	(554)	13.9	(0.2)	11,560	(220)	15.8	(0.1)	27,280	(383)	13.8	(0.2)	6,408	(151)	11.7	(0.5)
2020	37,200	(533)	11.3	(0.2)	9,380	(227)	12.7	(0.1)	22,860	(355)	11.4	(0.2)	4,961	(146)	9.1	(0.4)
2021	31,170	(502)	9.5	(0.2)	5,428	(182)	7.4	(0.1)	19,970	(346)	10.0	(0.2)	5,774	(144)	10.3	(0.4)

Numbers in thousands. Standard errors in parentheses; generated using survey replicate weights. Note: 2017[1] represents the 2017 CPS ASEC Legacy Processing System estimate, consistent with 2014-2016 estimates. 2019[2] represents the old SPM methodology, consistent with 2017-2018 estimates. Source: 2015 - 2022 Current Population Survey Annual Social and Economic Supplements (CPS ASEC); 2017-2021 Center for Medicare and Medicaid Services Public Use Files; 2014-2017 HIX Compare files.

Appendix Table 2: Numbers in Poverty by Health Insurance Type, 2021

	HIPM		SPM		Difference	
	Number	SE	Number	SE	Number	SE
Employer Sponsored Insurance	4,139	(159)	4,001	(159)	138*	(70)
Direct Purchase	2,687	(133)	2,283	(122)	404*	(76)
Medicare	5,100	(140)	5,452	(143)	-352*	(59)
FY Medicaid	7,691	(192)	6,999	(192)	693*	(83)
PY Medicaid	638	(62)	396	(47)	242*	(37)
CHIP	287	(36)	181	(32)	107*	(21)
CHAMPVA	77	(16)	78	(17)	-1	(1)
Uninsured	9,165	(277)	4,801	(188)	4,365*	(179)
Dual Medicare/Medicaid	1,275	(64)	1,313	(64)	-37	(26)

Numbers in thousands. * represents statistically significant differences at the 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. Note: Health Insurance coverage characteristics do not include infants born in the calendar year. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Appendix Table 3: Differences in Poverty Rates by States

State	HIPM	SE	SPM	SE	State	HIPM	SE	SPM	SE
All People	11.6	(0.1)	9.6	(0.1)	Missouri	10.5	(0.9)	7.5	(0.8)
Alabama	12.9	(1.0)	10.3	(1.1)	Montana	8.9	(0.6)	8.2	(0.5)
Alaska	14.7	(1.4)	9.8	(0.7)	Nebraska	9.4	(0.7)	6.2	(0.5)
Arizona	10.9	(0.9)	9.0	(0.8)	Nevada	11.5	(0.7)	9.3	(0.7)
Arkansas	11.2	(0.6)	9.7	(0.6)	New Hampshire	5.8	(0.5)	5.5	(0.5)
California	14.6	(0.3)	13.2	(0.3)	New Jersey	8.5	(0.6)	8.1	(0.5)
Colorado	10.6	(0.8)	9.4	(0.8)	New Mexico	12.3	(0.7)	10.6	(0.6)
Connecticut	9.5	(0.9)	9.0	(0.8)	New York	13.0	(0.5)	12.1	(0.5)
Delaware	10.6	(0.8)	8.4	(0.7)	North Carolina	13.5	(0.7)	9.9	(0.5)
District of Columbia	14.6	(0.8)	14.6	(0.8)	North Dakota	6.8	(0.5)	7.1	(0.5)
Florida	15.6	(0.5)	11.9	(0.4)	Ohio	8.8	(0.5)	8.1	(0.5)
Georgia	15.0	(0.8)	10.2	(0.7)	Oklahoma	13.6	(0.7)	9.1	(0.7)
Hawaii	10.8	(0.8)	10.5	(0.8)	Oregon	8.3	(0.5)	7.0	(0.4)
Idaho	8.1	(0.5)	6.0	(0.4)	Pennsylvania	8.5	(0.5)	7.6	(0.5)
Illinois	9.8	(0.5)	7.8	(0.4)	Rhode Island	7.1	(0.7)	6.0	(0.6)
Indiana	8.5	(0.6)	7.4	(0.6)	South Carolina	12.2	(0.8)	10.0	(0.6)
Iowa	7.7	(1.0)	6.0	(0.7)	South Dakota	8.2	(1.2)	6.2	(0.6)
Kansas	8.2	(0.8)	6.0	(0.7)	Tennessee	12.6	(0.8)	9.1	(0.7)
Kentucky	11.7	(0.9)	9.9	(0.8)	Texas	14.9	(0.5)	10.4	(0.4)
Louisiana	13.4	(0.7)	11.7	(0.6)	Utah	8.9	(1.0)	6.5	(0.8)
Maine	6.2	(0.9)	5.4	(0.8)	Vermont	7.4	(0.7)	6.9	(0.6)
Maryland	10.6	(0.7)	9.6	(0.7)	Virginia	10.2	(0.7)	8.6	(0.6)
Massachusetts	8.0	(0.5)	8.0	(0.6)	Washington	7.9	(0.7)	7.0	(0.5)
Michigan	7.6	(0.6)	7.6	(0.5)	West Virginia	11.7	(0.6)	9.4	(0.7)
Minnesota	5.7	(0.4)	5.1	(0.4)	Wisconsin	6.2	(0.5)	5.4	(0.4)
Mississippi	15.8	(0.9)	11.9	(0.7)	Wyoming	10.4	(0.8)	7.3	(0.5)

In percent. Standard errors in parentheses; generated using survey replicate weights. Implementation of 2020 Census-based population controls; more information is available in Shrider, Semega, and Starkey (2022). Source: U.S. Census Bureau, Current Population Survey, 2020 to 2022 Annual Social and Economic Supplements (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Appendix Table 4: Effect of Individual Elements on Poverty Rates, 2021

	All		Under Age 18		Age 18 to 64		Age 65 and Older	
Characteristic	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
All people	9.48	(0.15)	7.39	(0.25)	10.03	(0.17)	10.27	(0.26)
Additions								
Social Security	-7.59	(0.11)	-1.43	(0.11)	-3.45	(0.09)	-30.34	(0.48)
Medicare	-5.81	(0.09)	-1.12	(0.09)	-2.14	(0.07)	-24.94	(0.41)
Medicaid	-4.18	(0.11)	-6.70	(0.24)	-4.21	(0.11)	-0.79	(0.06)
Refundable tax credits	-2.98	(0.09)	-6.96	(0.23)	-2.28	(0.07)	-0.27	(0.03)
Economic Impact/Stimulus	-2.64	(0.09)	-3.29	(0.16)	-2.49	(0.09)	-2.35	(0.13)
Refundable Child Tax Credit	-1.75	(0.07)	-4.32	(0.18)	-1.25	(0.06)	-0.17	(0.03)
SNAP+School Lunch	-1.05	(0.06)	-1.77	(0.13)	-0.94	(0.05)	-0.48	(0.05)
SSI	-0.83	(0.04)	-0.39	(0.05)	-0.94	(0.05)	-1.00	(0.08)
SNAP	-0.81	(0.05)	-1.21	(0.1)	-0.76	(0.05)	-0.46	(0.05)
Unemployment insurance	-0.70	(0.05)	-0.71	(0.07)	-0.80	(0.06)	-0.32	(0.05)
Housing subsidies	-0.70	(0.04)	-0.79	(0.09)	-0.56	(0.04)	-1.05	(0.08)
Marketplace Subsidies	-0.41	(0.03)	-0.22	(0.03)	-0.57	(0.04)	-0.07	(0.02)
School lunch	-0.22	(0.03)	-0.51	(0.06)	-0.18	(0.02)	0.00	(0.0)
Child support received	-0.10	(0.02)	-0.21	(0.04)	-0.08	(0.02)	0.00	(0.0)
TANF/general assistance	-0.09	(0.02)	-0.17	(0.04)	-0.09	(0.02)	-0.02	(0.01)
Utility assistance	-0.05	(0.01)	-0.04	(0.01)	-0.05	(0.01)	-0.06	(0.02)
Energy assistance	-0.04	(0.01)	-0.04	(0.01)	-0.04	(0.01)	-0.05	(0.02)
Workers' compensation	-0.04	(0.01)	-0.01	(0.01)	-0.06	(0.01)	-0.02	(0.01)
WIC	-0.01	(0.01)	-0.02	(0.01)	-0.01	(0.01)	0.00	(0.0)
Broadband Assistance	Z	Z	Z	Z	Z	Z	-0.01	(0.01)
Subtractions								
Child support paid	0.07	(0.01)	0.06	(0.02)	0.09	(0.01)	0.01	(0.0)
Premium MOOP	0.41	(0.03)	0.33	(0.05)	0.50	(0.04)	0.17	(0.04)
Non-Premium MOOP	0.52	(0.04)	0.32	(0.05)	0.53	(0.05)	0.75	(0.08)
Federal income tax	0.82	(0.05)	0.91	(0.09)	0.77	(0.05)	0.86	(0.09)
FICA	0.83	(0.05)	0.86	(0.08)	0.99	(0.06)	0.24	(0.04)
Work expenses	0.88	(0.05)	0.90	(0.09)	1.05	(0.06)	0.25	(0.04)

Standard errors in parentheses; generated using survey replicate weights. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Appendix Table 5: Effect of Individual Elements on the Number of Individuals in Poverty, 2021

	All		Under Age 18		Age 18 to 64		Age 65 and Older	
Characteristic	Number	SE	Number	SE	Number	SE	Number	SE
All people	31,170	(502)	5,428	(182)	19,970	(346)	5,774	(144)
Additions								
Social Security	-24,960	(368)	-1,047	(81)	-6,864	(178)	-17,050	(267)
Medicare	-19,100	(308)	-823	(65)	-4,267	(149)	-14,010	(231)
Medicaid	-13,750	(371)	-4,925	(173)	-8,382	(227)	-446	(35)
Refundable tax credits	-9,806	(293)	-5,110	(169)	-4,542	(143)	-154	(19)
Economic Impact/Stimulus	-8,691	(284)	-2,417	(118)	-4,952	(184)	-1,322	(76)
Refundable Child Tax Credit	-5,756	(235)	-3,172	(135)	-2,488	(111)	-97	(15)
SNAP+School Lunch	-3,439	(186)	-1,297	(96)	-1,874	(104)	-268	(30)
SSI	-2,720	(116)	-285	(35)	-1,874	(90)	-560	(45)
SNAP	-2,669	(152)	-887	(72)	-1,522	(92)	-260	(30)
Unemployment insurance	-2,296	(149)	-519	(50)	-1,600	(113)	-177	(27)
Housing subsidies	-2,288	(128)	-577	(63)	-1,121	(71)	-590	(44)
Marketplace Subsidies	-1,340	(86)	-165	(23)	-1,137	(75)	-38	(11)
School lunch	-732	(83)	-375	(44)	-354	(44)	-3	(2)
Child support received	-316	(59)	-155	(32)	-161	(31)	0	(0)
TANF/general assistance	-311	(64)	-126	(30)	-171	(35)	-14	(7)
Utility assistance	-164	(29)	-32	(10)	-97	(19)	-36	(11)
Energy assistance	-146	(28)	-29	(10)	-89	(18)	-27	(9)
Workers' compensation	-134	(27)	-10	(7)	-113	(25)	-11	(5)
WIC	-37	(18)	-17	(8)	-20	(10)	0	(0)
Broadband Assistance	-9	(5)	-1	(1)	-5	(3)	-4	(4)
Subtractions								
Child support paid	237	(36)	48	(18)	186	(27)	3	(2)
Premium MOOP	1,342	(112)	242	(38)	1,004	(88)	96	(21)
Non-Premium MOOP	1,708	(126)	238	(37)	1,047	(90)	423	(45)
Federal income tax	2,690	(165)	667	(67)	1,541	(108)	482	(48)
FICA	2,730	(150)	631	(60)	1,966	(110)	133	(23)
Work expenses	2,889	(164)	663	(64)	2,086	(118)	139	(22)

Numbers in thousands. Standard errors in parentheses; generated using survey replicate weights. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Appendix Table 6: Share of Poverty Measure Reporting Program Receipt, 2021

	HIPM Poverty	SE	SPM Poverty	SE	Difference	SE
Has School Lunch	25.6	(0.8)	20.5	(0.9)	5.1*	(1.2)
Has SNAP	25.2	(0.7)	24.7	(0.7)	0.5	(1.)
Has Energy Subsidy	5.5	(0.4)	6.2	(0.4)	-0.6	(0.6)
Has Housing Subsidy	6.6	(0.4)	6.7	(0.3)	-0.1	(0.5)
Has CTC	35.5	(0.9)	29.7	(1.0)	5.8*	(1.3)
Has WIC	5.0	(0.5)	3.7	(0.4)	1.3*	(0.6)

In percent. * represents statistically significant differences at the 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.

Appendix Table 7: Additional Sensitivity Tests

Characteristic	Base HIPM Rate	SE	Subannual Medicaid	SE	Marketplace Subsidy	SE	Alternative HIEUs	SE
All People	9.5	(0.2)	9.5	(0.2)	9.6*	(0.2)	9.5	(0.2)
Under 18 years	7.4	(0.2)	7.4	(0.2)	7.4*	(0.2)	7.4	(0.2)
18 to 64 years	10.0	(0.2)	10.0	(0.2)	10.2*	(0.2)	10.0	(0.2)
65 years and older	10.3	(0.3)	10.3	(0.3)	10.4*	(0.3)	10.3	(0.3)
White, not Hispanic	6.4	(0.2)	6.4	(0.2)	6.6*	(0.2)	6.4	(0.2)
Black	13.0	(0.5)	13.1	(0.5)	13.1	(0.5)	13.0	(0.5)
Asian	10.4	(0.5)	10.4	(0.5)	10.6	(0.5)	10.5	(0.5)
American Indian and Alaska Native	15.9	(1.6)	15.9	(1.6)	16.0	(1.6)	15.9	(1.6)
Two or more races	8.2	(0.7)	8.2	(0.7)	8.2	(0.7)	8.2	(0.7)
Hispanic (any race)	16.2	(0.4)	16.3	(0.4)	16.3*	(0.4)	16.3	(0.4)
With private insurance	4.0	(0.1)	4.0	(0.1)	4.2*	(0.1)	4.0	(0.1)
With public, no private insurance	15.8	(0.3)	15.8	(0.3)	15.8	(0.3)	15.8	(0.3)
Not insured	33.2	(0.8)	33.2	(0.8)	33.3*	(0.8)	33.3	(0.8)

In percent. * represents statistically significant differences at the 90% confidence level. Standard errors in parentheses; generated using survey replicate weights. Note: Health Insurance coverage characteristics do not include infants born in the calendar year. Source: 2022 Current Population Survey Annual Social and Economic Supplement (CPS ASEC); 2021 Center for Medicare and Medicaid Services Public Use Files.